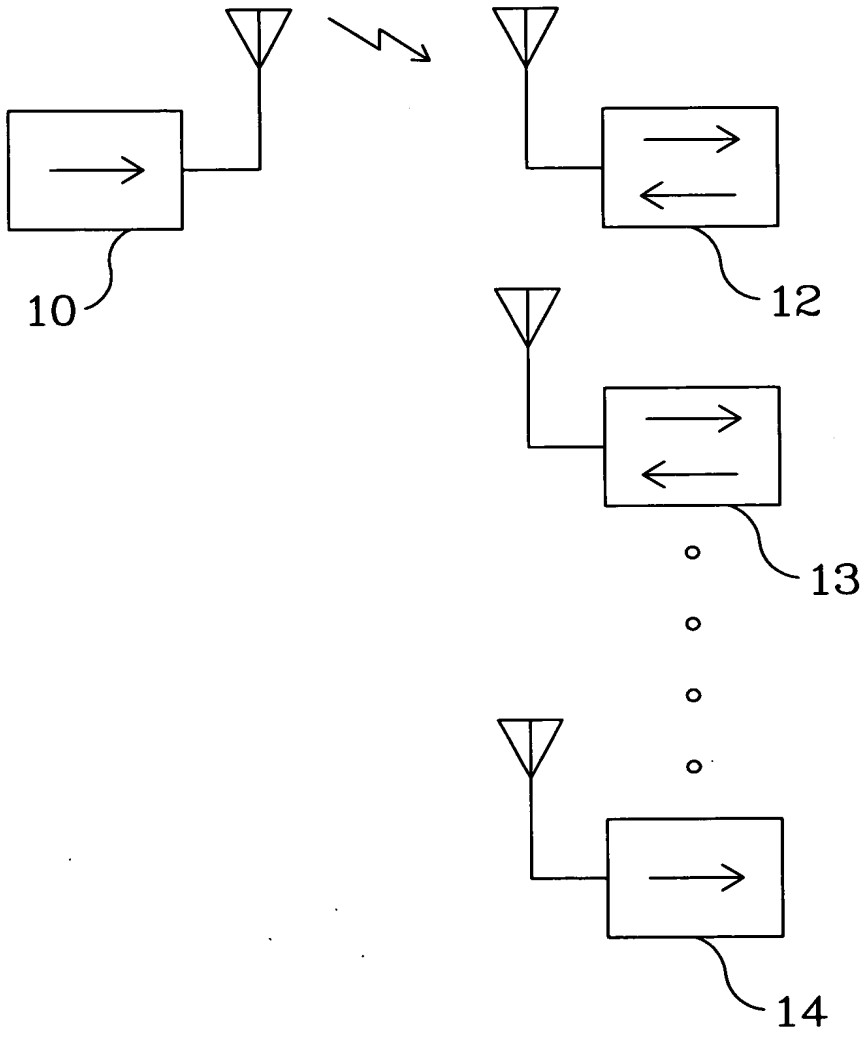


Fig. 1

990270 99+02960

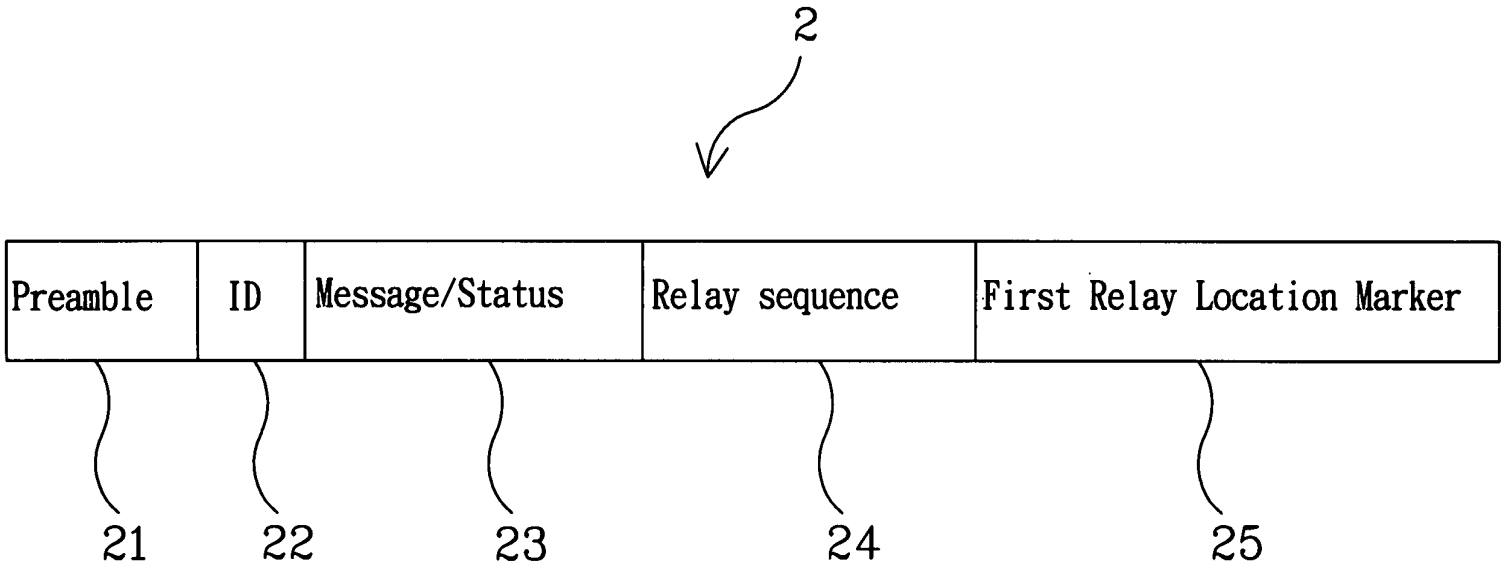


Fig. 2

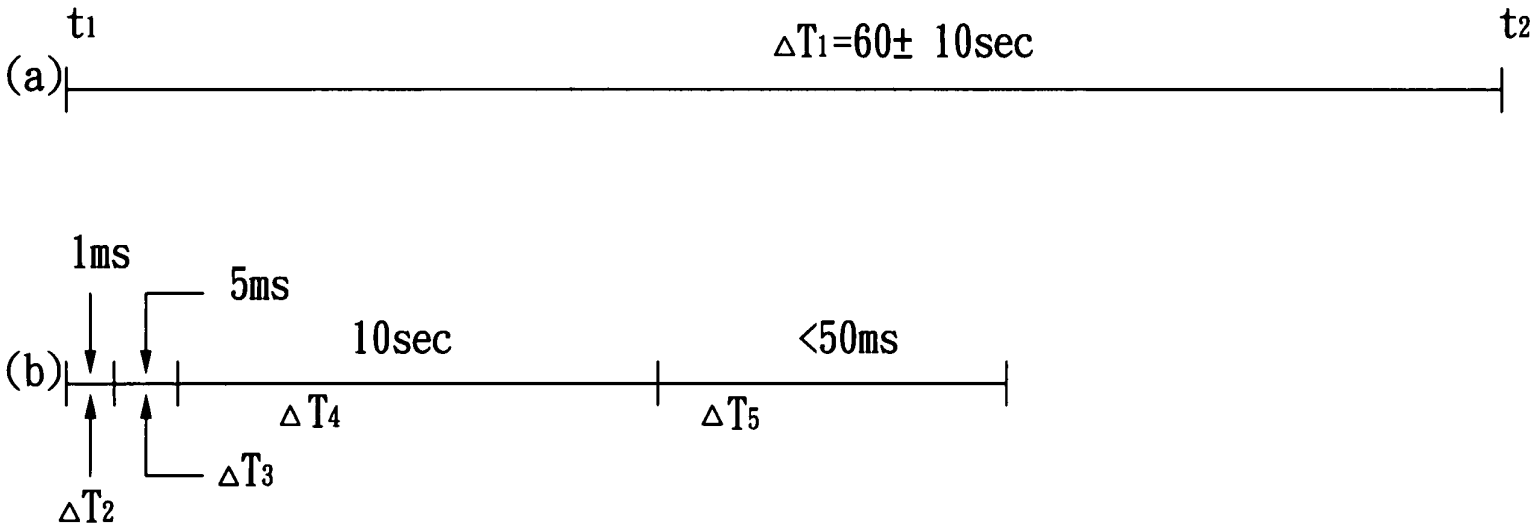


Fig. 3

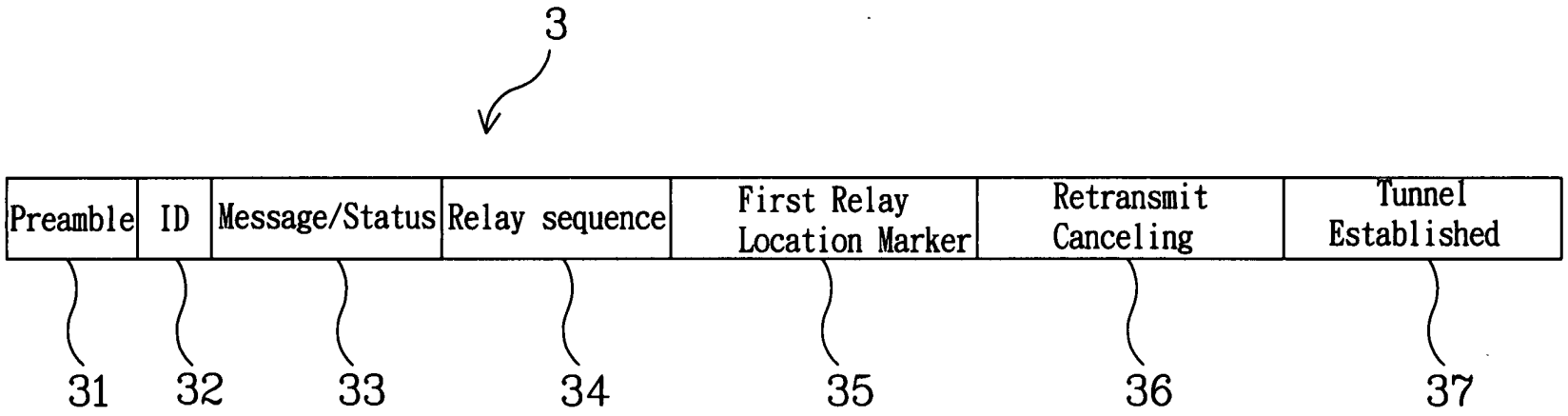
3
Preamble
ID
Message/Status
Relay sequence
First Relay Location Marker
Retransmit Canceling
Tunnel Established
31
32
33
34
35
36
37

Fig. 4

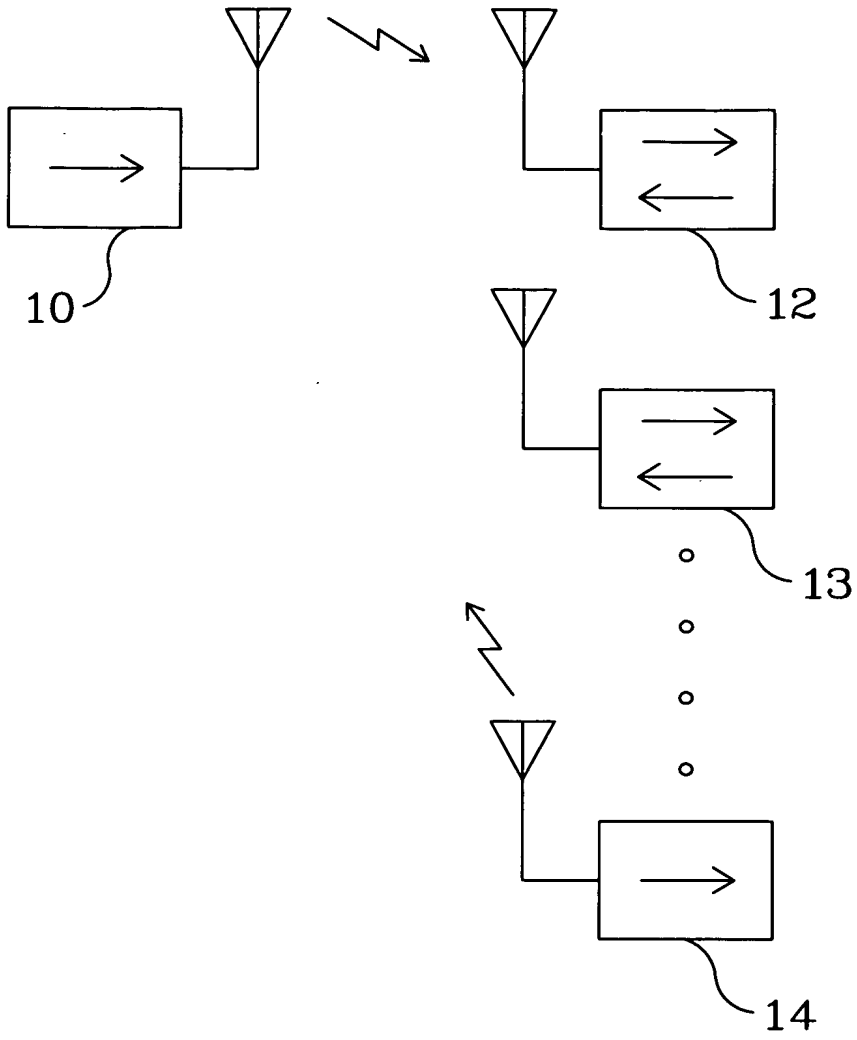


Fig. 5

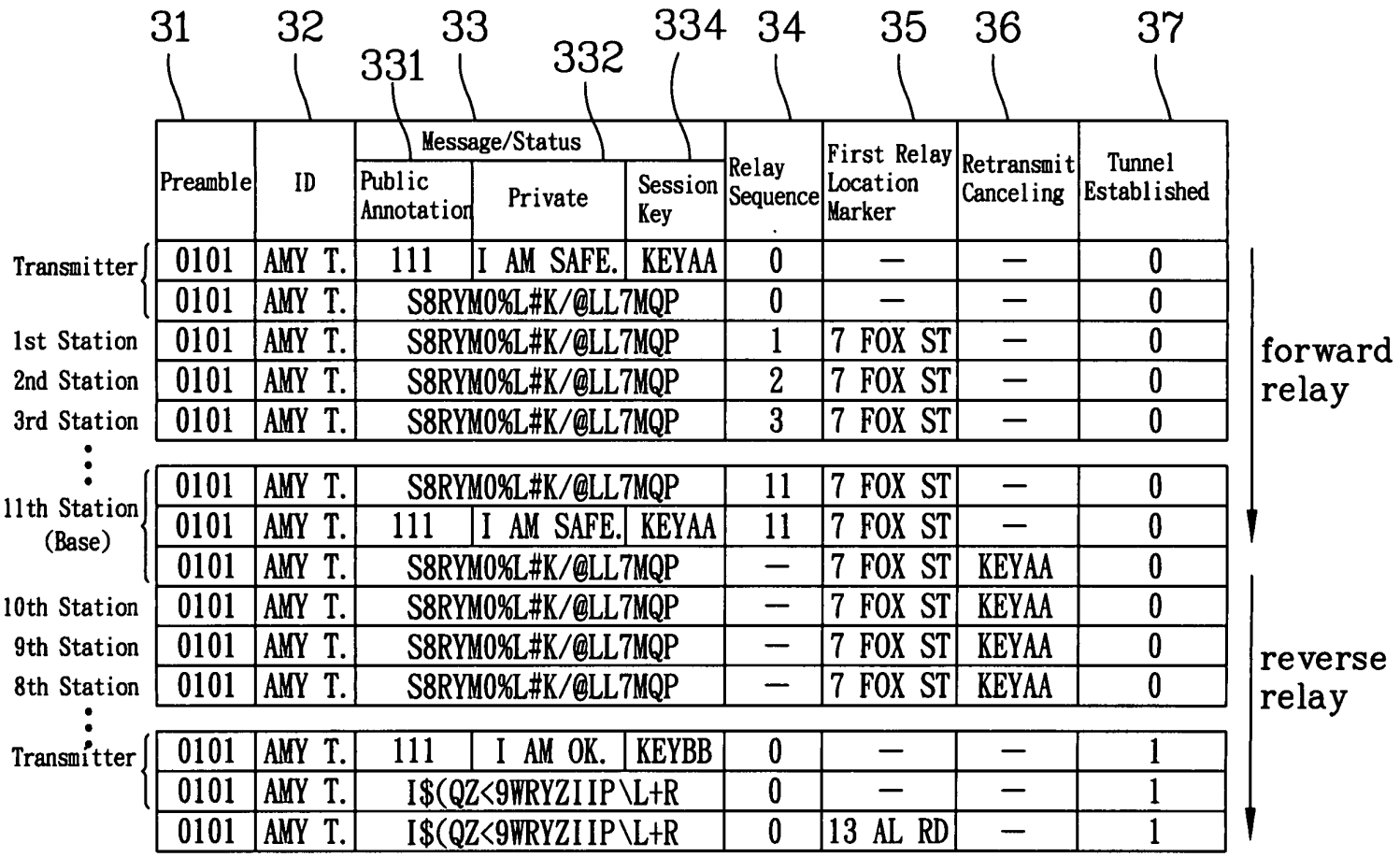
31
32
33
331
332
334
34
35
36
37
Message/Status
Preamble
ID
Public Annotation
Private
Session Key
Relay Sequence
First Relay Location Marker
Retransmit Canceling
Tunnel Established
Transmitter
0101 AMY T. 111 I AM SAFE. KEYAA 0 — — 0
0101 AMY T. S8RYM0%L#K/@LL7MQP 0 — — 0
1st Station
0101 AMY T. S8RYM0%L#K/@LL7MQP 1 7 FOX ST — 0
2nd Station
0101 AMY T. S8RYM0%L#K/@LL7MQP 2 7 FOX ST — 0
3rd Station
0101 AMY T. S8RYM0%L#K/@LL7MQP 3 7 FOX ST — 0
11th Station (Base)
0101 AMY T. S8RYM0%L#K/@LL7MQP 11 7 FOX ST — 0
0101 AMY T. 111 I AM SAFE. KEYAA 11 7 FOX ST — 0
0101 AMY T. S8RYM0%L#K/@LL7MQP — 7 FOX ST KEYAA 0
10th Station
0101 AMY T. S8RYM0%L#K/@LL7MQP — 7 FOX ST KEYAA 0
9th Station
0101 AMY T. S8RYM0%L#K/@LL7MQP — 7 FOX ST KEYAA 0
8th Station
0101 AMY T. S8RYM0%L#K/@LL7MQP — 7 FOX ST KEYAA 0
Transmitter
0101 AMY T. 111 I AM OK. KEYBB 0 — — 1
0101 AMY T. I$(QZ<9WRYZIIP\L+R 0 — — 1
0101 AMY T. I$(QZ<9WRYZIIP\L+R 0 13 AL RD — 1
forward relay
reverse relay

Fig. 6

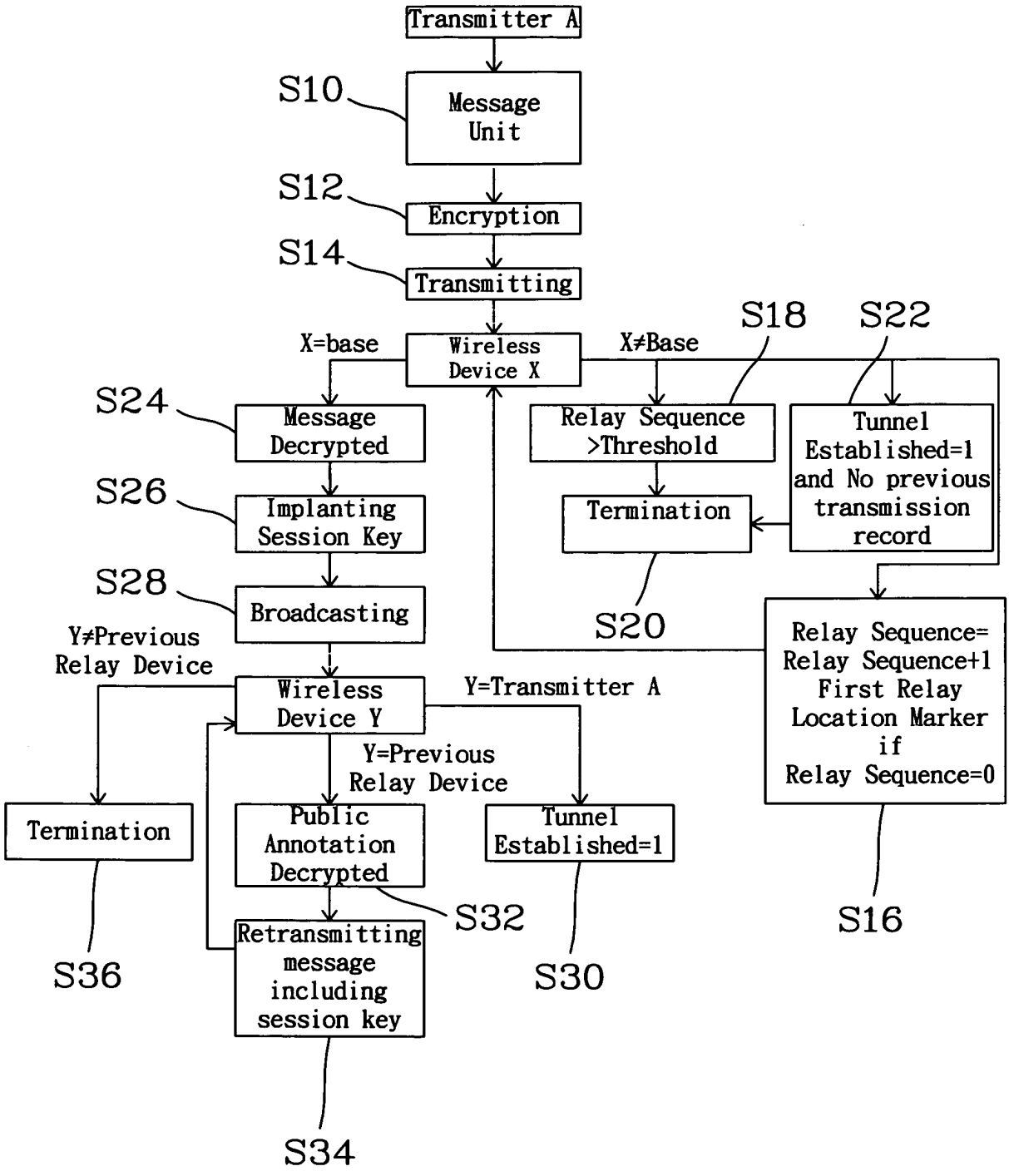
Transmitter A
S10
Message Unit
S12
Encryption
S14
Transmitting
Wireless Device X
X=base
X≠Base
S18
S22
S24
Message Decrypted
Relay Sequence >Threshold
Tunnel Established=1 and No previous transmission record
S26
Implanting Session Key
Termination
S28
Broadcasting
S20
Relay Sequence= Relay Sequence+1 First Relay Location Marker if Relay Sequence=0
Y≠Previous Relay Device
Wireless Device Y
Y=Transmitter A
Y=Previous Relay Device
Termination
Public Annotation Decrypted
Tunnel Established=1
S32
S16
S36
S30
Retransmitting message including session key
S34

Fig. 7

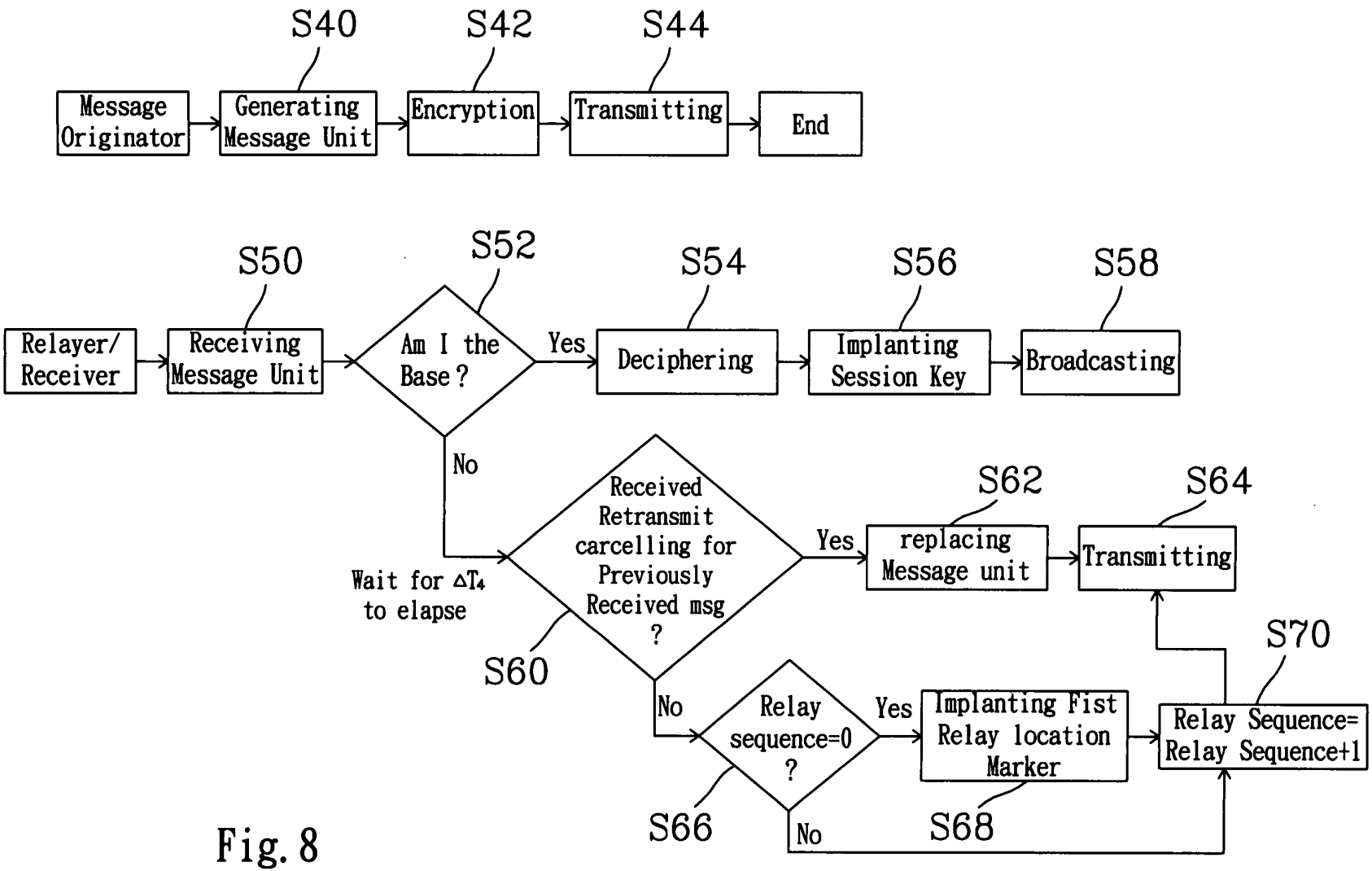
S40
S42
S44
Message Originator
Generating Message Unit
Encryption
Transmitting
End
S50
S52
S54
S56
S58
Relayer/ Receiver
Receiving Message Unit
Am I the Base?
Yes
Deciphering
Implanting Session Key
Broadcasting
No
Wait for ΔT4 to elapse
Received Retransmit carcelling for Previously Received msg ?
S60
S62
S64
Yes
replacing Message unit
Transmitting
S70
No
Relay sequence=0 ?
Yes
Implanting Fist Relay location Marker
Relay Sequence= Relay Sequence+1
S66
S68
No

Fig. 8